

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
29 December 2005 (29.12.2005)

PCT

(10) International Publication Number  
**WO 2005/124781 A2**

(31) International Patent Classification<sup>7</sup>: **G11B 27/00**

(21) International Application Number:  
PCT/JP2005/011487

(22) International Filing Date: 16 June 2005 (16.06.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
2004-179754 17 June 2004 (17.06.2004) JP  
2004-187989 25 June 2004 (25.06.2004) JP

(71) Applicant (*for all designated States except US*): **RICOH COMPANY, LTD.** [JP/JP]; 3-6, Nakamagome 1-chome, Ohta-ku, Tokyo 1438555 (JP).

(72) Inventor; and

(75) Inventor/Applicant (*for US only*): **SASAKI, Yoshiyuki** [JP/JP]; 460-307, Nougayamachi, Machida-shi, Tokyo 1950053 (JP).

(74) Agent: **ITO, Tadahiko**; 32nd Floor, Yebisu Garden Place Tower, 20-3, Ebisu 4-chome, Shibuya-ku, Tokyo 1506032 (JP).

(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**

— *without international search report and to be republished upon receipt of that report*

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: INFORMATION RECORDING MEDIUM, RECORDING METHOD, DATA STRUCTURE, INFORMATION RECORDING APPARATUS, PROGRAM, AND RECORDING MEDIUM

(57) Abstract: A disk-shaped rewritable information recording medium having at a first recording layer and a second recording layer is disclosed. The information recording medium includes a first data area situated in the first recording layer, the first data area having a plurality of addresses allocated thereto, the plural addresses continuously increasing in a first direction, a second data area situated in the second recording layer, the second data area having a plurality of addresses allocated thereto, the plural addresses continuously increasing in a second direction opposite to the first direction, and a management information area having an area for recording end recorded area information thereto, the end recorded area information including information for identifying an area in the second data area having data that corresponds to an end position of the second data area.

WO 2005/124781 A2